

### **Amendments to the Specification:**

Please replace the paragraph on page 22, lines 10-13 with the following paragraph that is between the two sets of dash symbols "--":

--Information about the BuDDy package can be obtained from Jorn Lind-Nielsen,  
5 Computer Systems Section at the Department of Information Technology, Technical University  
of Denmark, ~~or from <http://www.itu.12/research/buddy/>, or by sending an e-mail to~~  
~~[buddy@itu.12](mailto:buddy@itu.12) who may be contacted by email or through the University website.~~--

Please replace the paragraph on page 27, lines 9-18 with the following paragraph that is  
10 between the two sets of dash symbols "--":

--In this pseudo code, T<sub>0</sub>, i<sub>0</sub>, i<sub>max</sub>, alpha, beta are parameters for the simulated  
annealing algorithm. These parameters might be specified by a user or set by the optimizer. In  
some embodiments, alpha equals 0.98, and beta equals 1.1. The selection of the annealing  
parameters is well studied. One scheme for specifying these parameters is disclosed in "A  
15 Comparison of Annealing Techniques for Academic Course Scheduling," by M.A. Saleh  
Elmohamed, et al., published at 2nd international conference, PATAT97. *See also, e.g.,*  
"Simulated Annealing and Combinational Optimization," by Surendra Nahar, et al., University of  
Minnesota, 23 Design Automation Conference, pp. 293-299. Also, several software packages are  
available for determining the parameters for simulated annealing. One such package is ASA,  
20 written by Lester Ingber, ~~[www.ingber.com](http://www.ingber.com)~~ who may be contacted through the internet.--

Please replace the paragraph beginning at page 65, line 19 and ending on page 66, line 5,  
with the following paragraph that is between the two sets of dash symbols "--":

--Numerous known techniques can be used to construct all graphs for a given number of

nodes and edges. Some embodiments construct initially all undirected graphs for a given number of nodes and edges. There are software packages available for constructing all undirected graphs. One such package is the "geng" program package by Brendan D. McKay (~~bdm@cs.anu.edu.au~~) (who may be contacted by email), Computer Science Department,

5 Australian National University. This package can be downloaded through the internet. at:

~~<http://cs.anu.edu.au/~bdm/nauty/gtools10beta11.tar.gz>~~

After generating all undirected graphs, these embodiments generate all directed graphs by trying all possible assignments for directions on all edges of each graph. After constructing all directed graphs for each combination of nodes and edges, the process discards all cyclic graphs for the  
10 combination, and then stores each remaining graph in the graph table so long as the graph is not isomorphic to a previously stored graph.--

Please replace the paragraph on page 66, lines 6-13, with the following paragraph that is between the two sets of dash symbols "--":

15 --Checking for cycles and identifying isomorphic graphs is commonly known in the art. For instance, Cormen, Leiserson, Rivest and Stein, Introduction to Algorithms, Second Edition, Chapter 22 (Elementary Graph Algorithms), MIT Press 2001 discloses one manner of checking a graph for cycles by traversing the graph. In addition, there are software packages available for identifying isomorphic graphs. One such package is the "nauty" package by Brendan D. McKay  
20 (~~bdm@cs.anu.edu.au~~) (who may be contacted by email), Computer Science Department, Australian National University. This package can be downloaded through the internet. at:

~~<http://cs.anu.edu.au/people/bdm/nauty>~~--